

ABSTRACT

The invention relates to a method and several arrangements for determining signal degradations of an optical signal transmitted in a transmission signal in the presence of signal distortions, wherein at least one part of the optical signal is fed to an adaptive optimal or electric filter at a place of measurement in the transmission system and is subsequently measured according to one or several quality parameters. A first measurement of the quality parameter is carried out by transparent adjustment of the adaptive filter and other measurements of the quality parameters are carried out with redefined transparency properties of the adaptive optical filter which respectively have an influence upon signal distortions. As a result it is possible to analyze or to separate signal-influencing effects or groups of effects. In another embodiment of the invention, the filter parameters of an optical/electric equalizer or filter structure, which are adjusted by said analysis, are described according to optimization of the signal quality.